



Quality, innovation and customer care, it's in our nature



Installation manual



MAKE OF AUTOMOBILE:
TYPE:
PISTON DISPLACEMENT:
NUMBER OF VALVES:
ENGINE NUMBER:
TYPE VSI INJECTOR (COLOR)
MODEL YEAR:
ENGINE SET NUMBER

JEEP
PATRIOT
2400cc
16V
2.4i
YELLOW
2007
337/1264000.07

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NUMBER : 076/3210201
DATE : 7-01-2009
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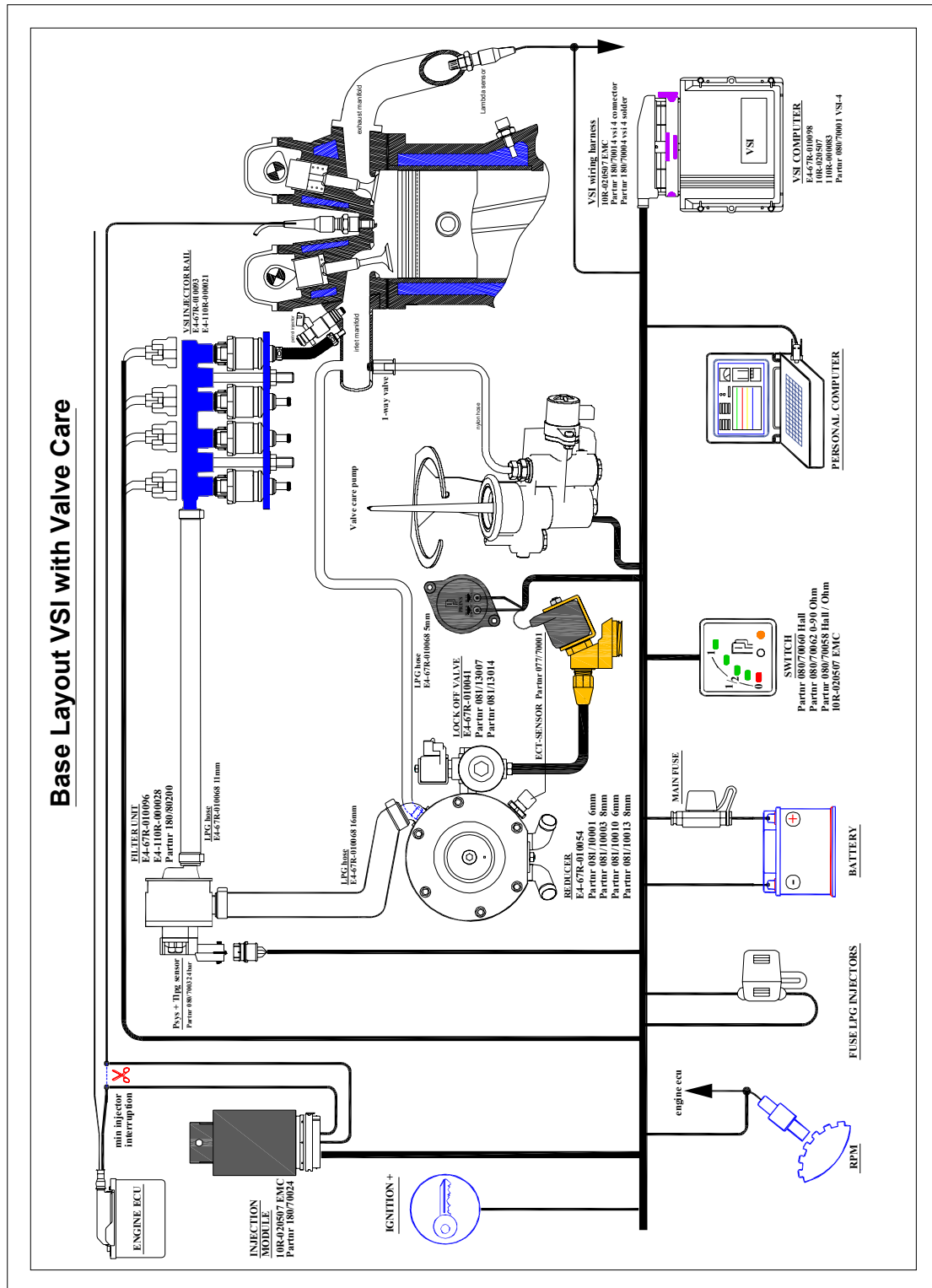
Required equipment / tools / materials for installing a complete system

- Complete workshop toolbox (wrenches, screwdrivers, cutters, pliers, ratchet, sockets)
- Car lift
- Portable computer : operating on Windows 98, W2000 or XP.
 - Internal memory : 16 Mb or more
 - Memory HD space : 5MB
 - Screen : 256 colours, advise colours 16 bits or more
 - Com port : 1 free COM port 1 or COM port 2 with a 9 or 25 pins connector
- Vehicle fuel system scan tool or OBD scan tool Prins (part nr. 099/99928)
- Valve care interface cable
- Valve care software
- Valve care air-breather pipe
- Exhaust gas analyser
- Multimeter
- Prins VSI diagnostic software
- Prins VSI serial interface
- Prins VSI break out box (part nr. 080/70090)
- Torque wrench (10Nm)
- Portable light
- Assortment drill bits 4 to 12 mm
- Portable drill or pneumatic drill
- Threading device (male M6x1)
- Air gun
- Allan spanner for inlet couplings 3,5mm (part nr. 099//9970)
- Soldering iron, soldering tin
- Wire-stripping pliers
- Adhesive tape
- Adhesive sealant
- Thread locking compound

Vehicle check

- Check the vehicle drivability on petrol
- Check the fuel system for error codes (scan tool)
- Check if the catalytic converter is in good condition (exhaust gas analyzer)

Base Layout VSI with Valve Care

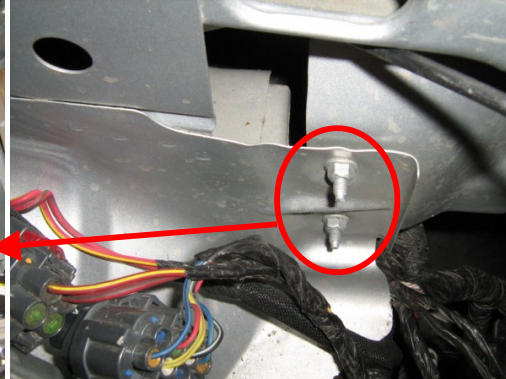


Mounting the Valve Care

Place the valve care unit by hand the left headlight



Don't remove the nuts.
Place the valve care bracket on the threaded end



Drill a hole of Ø5mm and tap M6x1 thread into the manifold.
Install the valve with a lock compound.
Install the hose into the self-locking valve.

Valve Care nylon hose

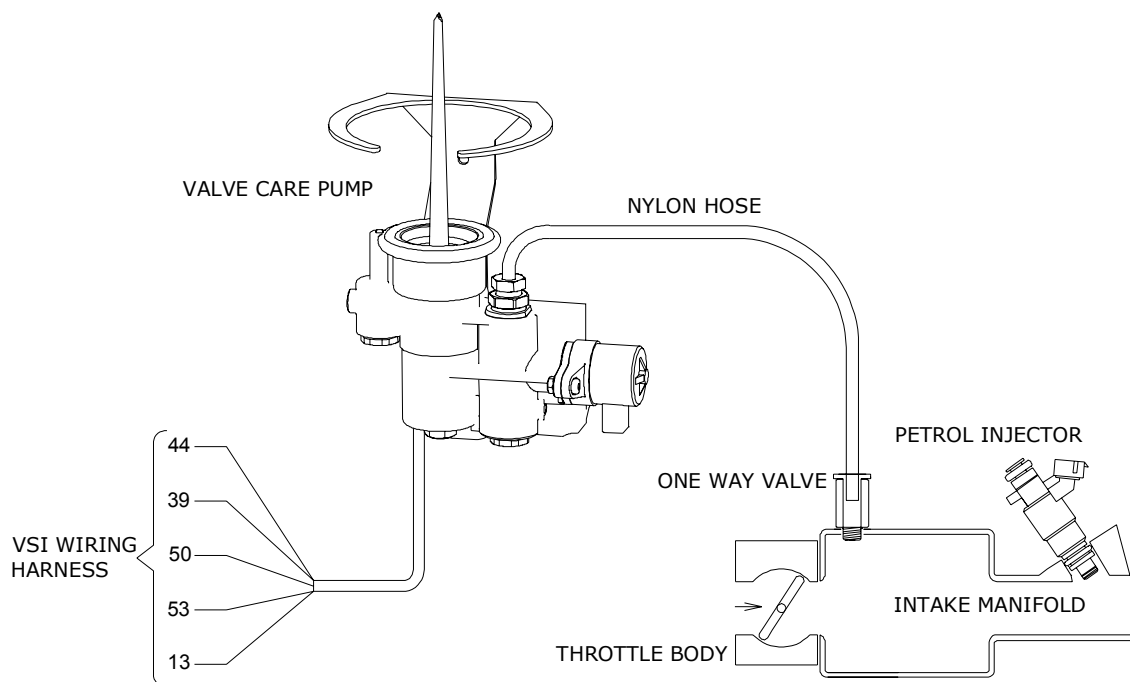
Length of hose, Ø 6 mm	Valve care pump -> 1 way valve	= ± 150cm
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Please observe that there is no damage or fouling to the hoses.

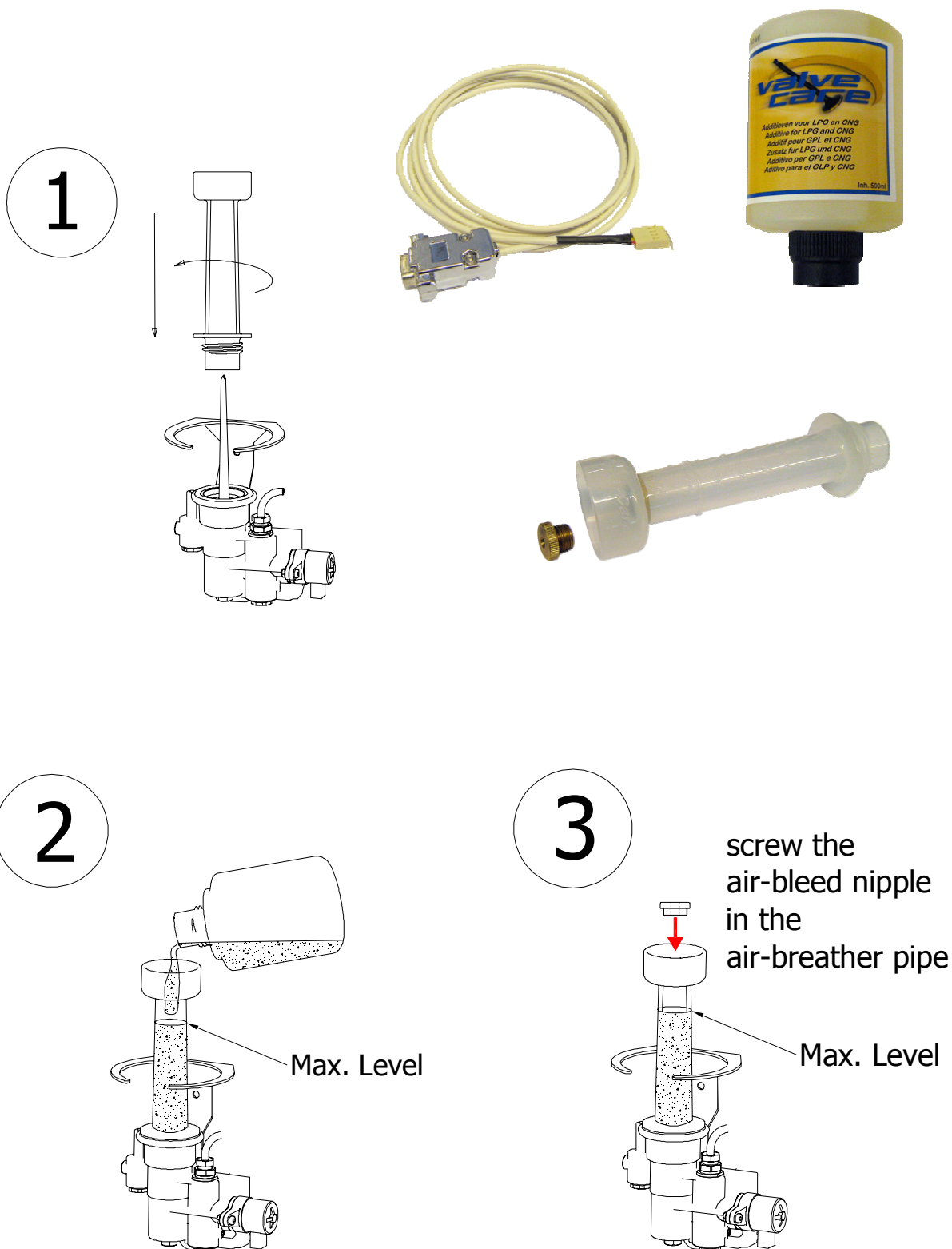
Electrical connections

Check and measure the wiring in case of changes in the cars wiring colors.

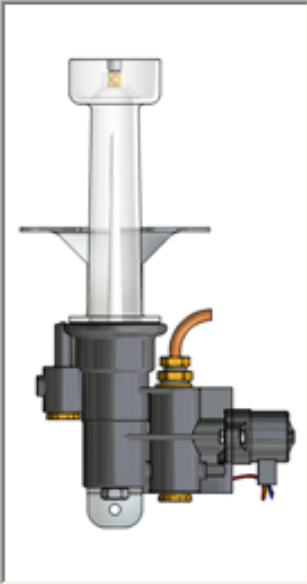
Valve care cable	Connection
Green	Wire color : green Wire location : VSI ecu pin. 44
White-yellow	Wire color : white-yellow Wire location : VSI ecu pin. 39
Brown	Wire color : brown Wire location : VSI ecu pin. 50
Green-yellow	Wire color : green-yellow Wire location : VSI ecu pin. 53
Red	Wire color : grey-white Wire location : VSI ecu pin. 13



Air-evacuating / activate Valve Care



Valve Care Lubricant Additive Setup - Introduction

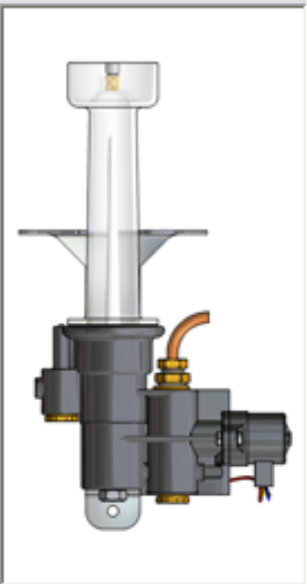


AGC Lubricant Additive Setup 1.3.3

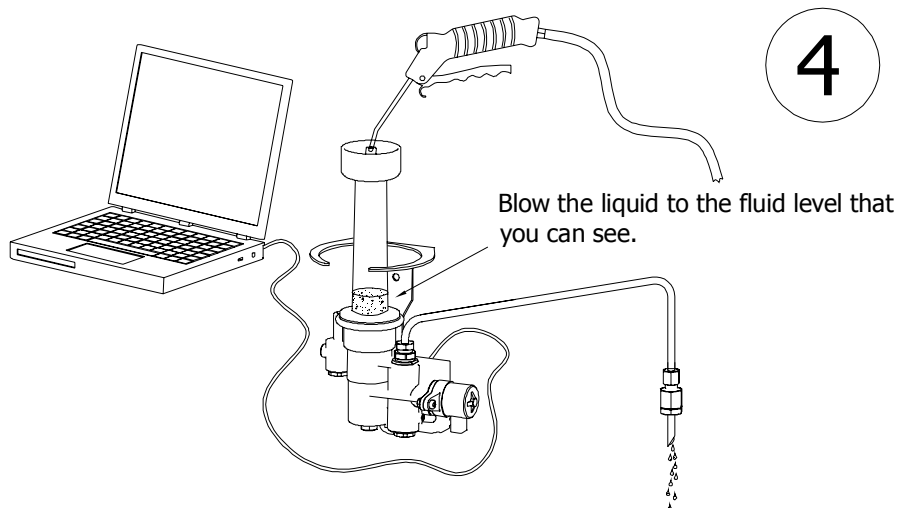
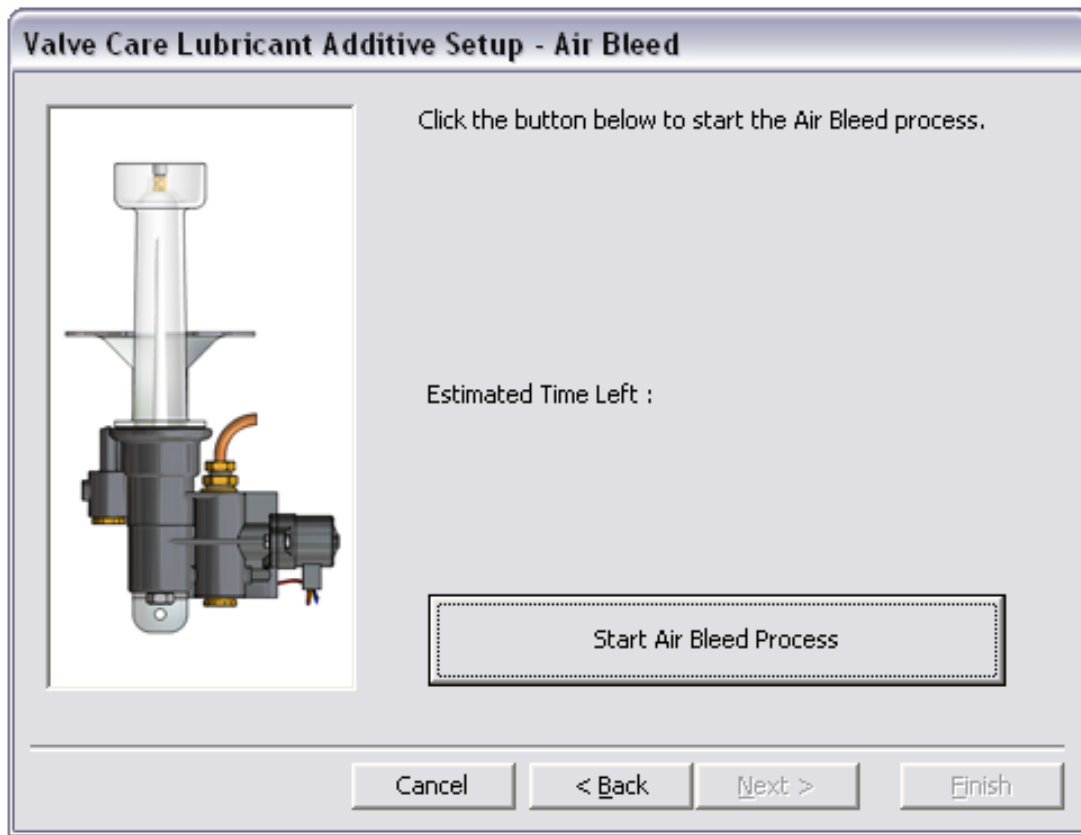
After installing the device in the car, use this application to set the mixing parameters.

You will be guided through the process step by step.
Click Next to continue.

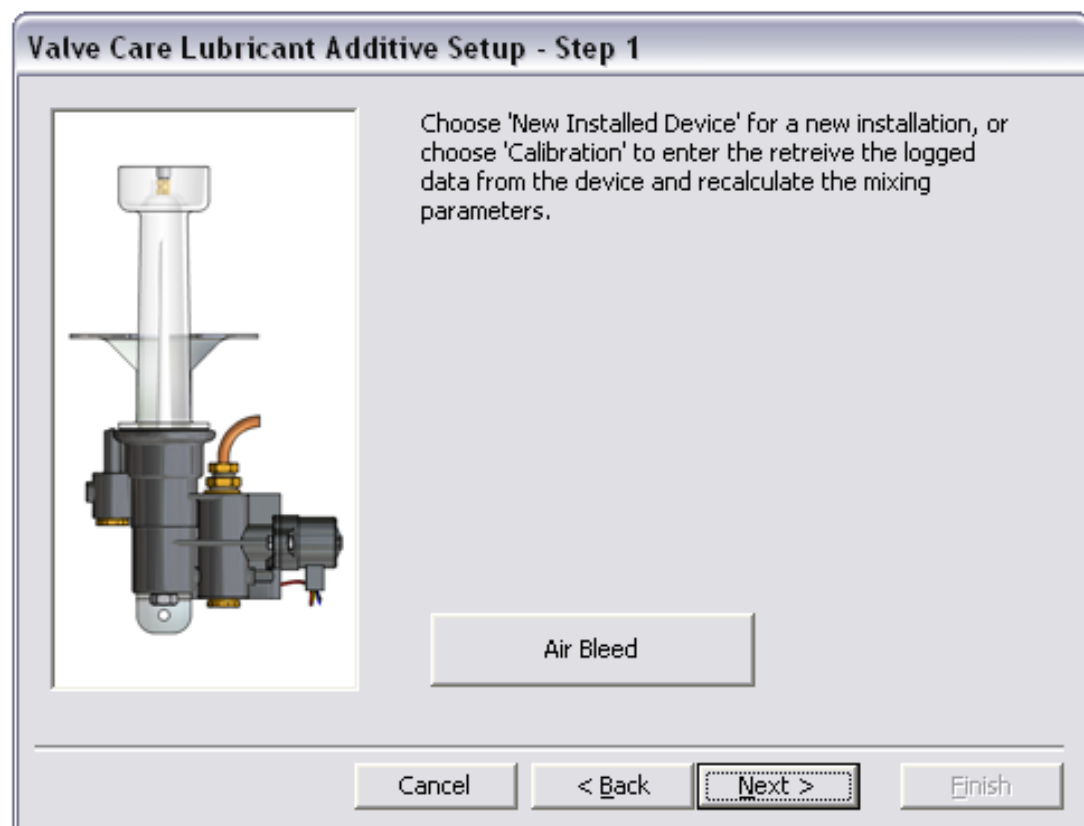
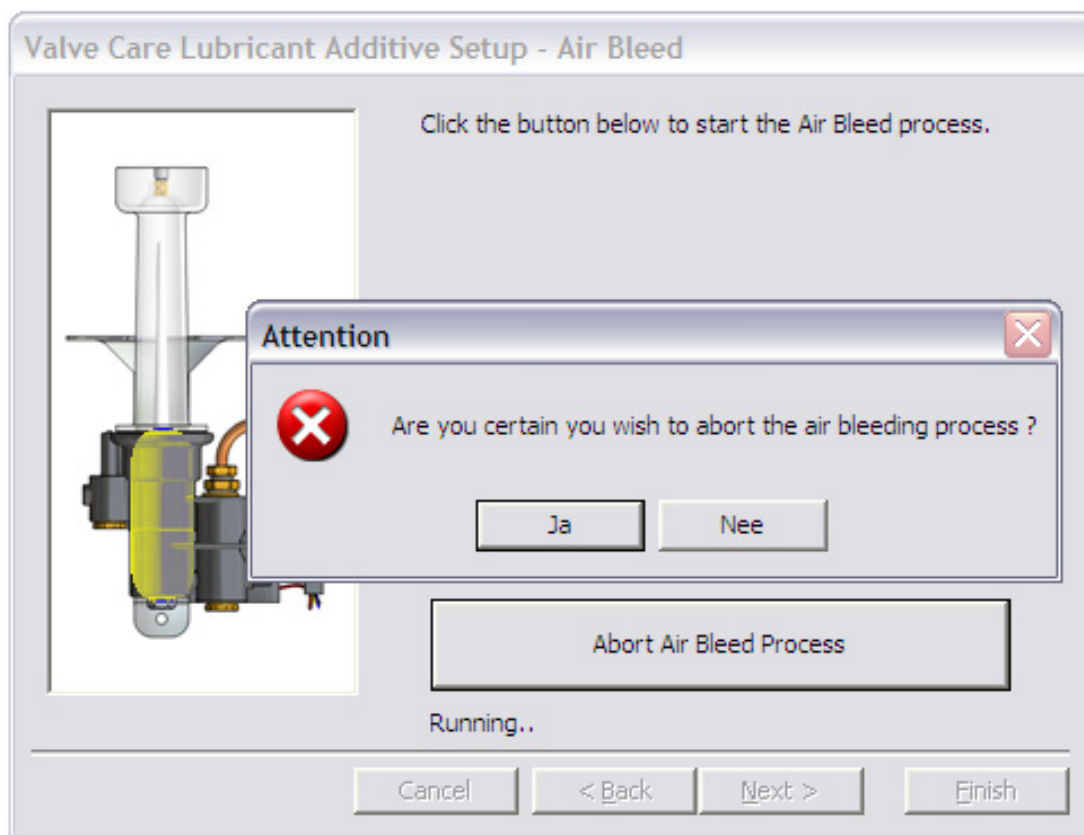
Valve Care Lubricant Additive Setup - Step 1



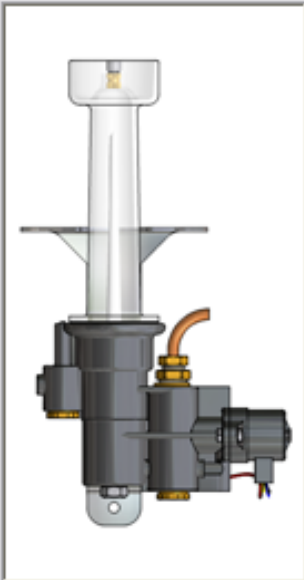
Choose 'New Installed Device' for a new installation, or choose 'Calibration' to enter the retrieve the logged data from the device and recalculate the mixing parameters.



Protect your eyes : use safety glasses !
Feed up the air pressure carefully and slowly until the fluid lowers.



Valve Care Lubricant Additive Setup - Step 2



New installation.

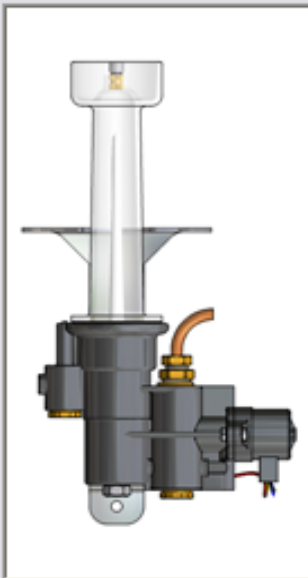
Select the correct parameters below to calculate the injectiontime ratio :

RC-Value VSI :

Number of cilinders :

Gasopbrengst injector (Liter/msec) :

Valve Care Lubricant Additive Setup - Diagnose

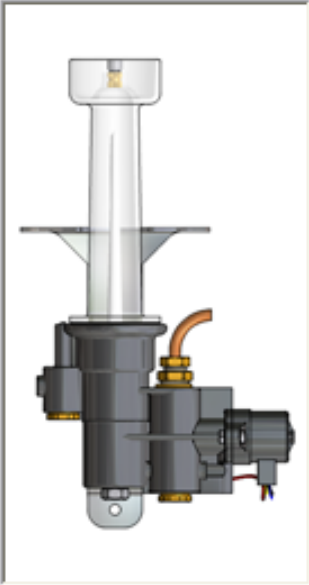


Diagnose

Firmware :

Berekende injectietijd per dosis additieven :

Valve Care Lubricant Additive Setup - Step 3



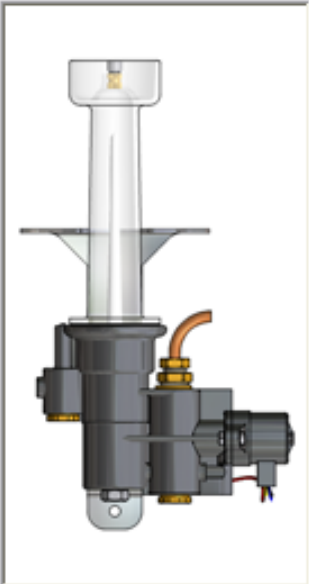
The calculation is complete.

Enable logging ONLY when customer is going to return otherwise it will reduce the lifetime of the device. Logging must be enabled to do the calibration !

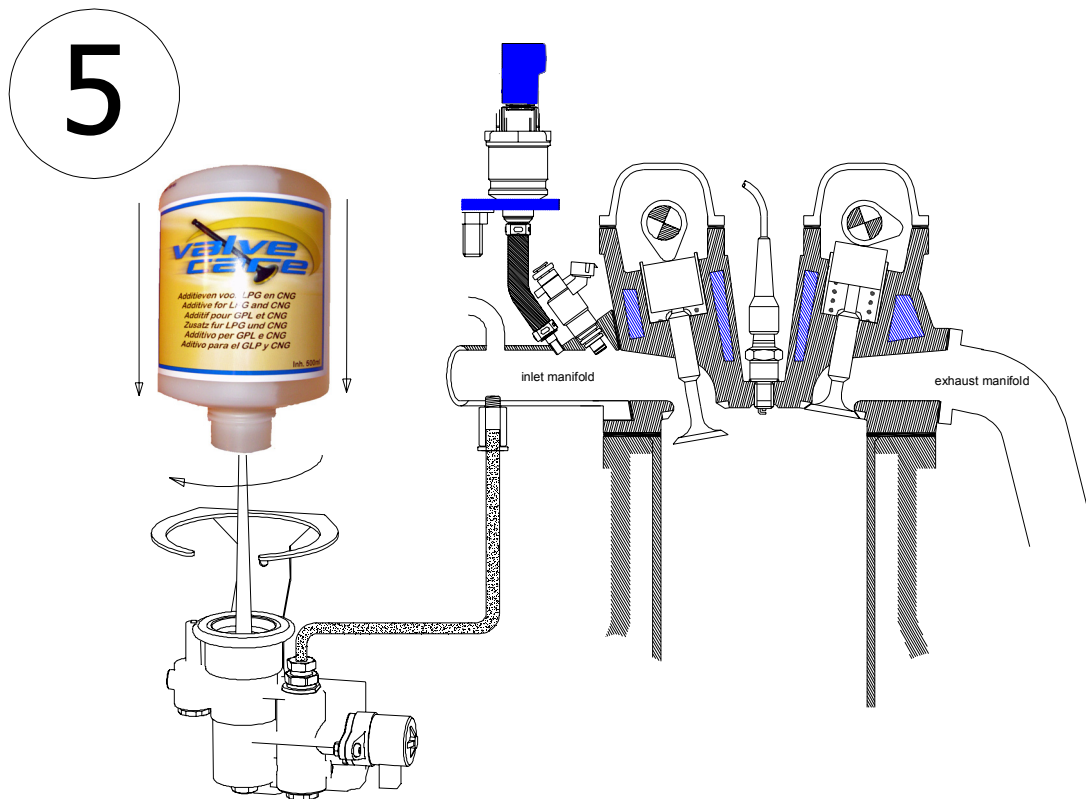
Click the button to send the parameters to the device :

Calculated injectiontime parameter :

Valve Care Lubricant Additive Setup - Finished!



The Device has been programmed !



Screw a bottle with Valve Care on the Valve Care pump.
Check the system for leakage.
The Valve Care installation is finished.